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Personality Traits and Entrepreneurial Intentions of Business Administration Students: A Correlation Study

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Abstract: The study aims to identify the personality traits of business administration students and how these traits affect their entrepreneurial intentions. Specifically, the undertaking tries to examine the (1) significant relationships between the respondents' openness to experience, conscientiousness, extraversion, agreeableness, neuroticism, and their entrepreneurial intentions; and (2) significant relationships between the respondents' overall personality traits and their entrepreneurial intentions. The participants were randomly selected in five (5) higher education institutions in Pampanga, Philippines. Using correlational-descriptive research, the undertaking revealed that the respondents' openness to experience, conscientiousness, agreeableness, and neuroticism have significant relationship to entrepreneurial intentions. On one hand, respondents' extraversion reflects no significant relationship to entrepreneurial intentions. Overall, there is statistically significant relationship between respondents' personality traits and their entrepreneurial intentions. The study recommends an entrepreneurship education framework which shows how personality traits of students can be utilized in establishing relevant entrepreneurship programs and activities that will impact entrepreneurship education in the Philippines.

Key Words: entrepreneurship; entrepreneurship education; personality traits; entrepreneurial intentions; business administration students

1. INTRODUCTION

In the Philippines, entrepreneurship is regarded as a steadfast tool in improving people's economic and social status. This cultural and social perspective of the Filipinos is a primary way in encouraging venture creation (Licaros-Velasco et al, 2014). Non-government agencies are also doing their part in promoting entrepreneurship through caravans, seminars, trainings, and multimedia campaigns to eradicate two (2) major problems – unemployment and poverty (Mendoza & Lacap, 2016).

The Commission on Higher Education

(CHED) in the Philippines has also been emphasizing the relevance of venture creation through higher education institutions (HEIs) programs. Entrepreneurship education provides myriad benefits to students. It fosters creativity and hones learners to develop unconventional skills and abilities. It creates vast opportunities, encourages confidences, augments the economy among others (Rodov & Truong, 2015).

Several literatures in the realm of psychology and human behavior suggest that personality traits can affect an individual's entrepreneurial intentions. Personality factors can have a vital role in establishing entrepreneurial process theories such as entrepreneurial intentions



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(Crant, 1996; Zhao, Seibert, & Hills, 2005; Zhao, Seibert, & Lumpkin, 2010). With this, the researcher would like to examine the possible effect of business administration students' personality traits to their intention to venture creation, and this will be the focal point of the entire undertaking.

1.1 Research Objectives and Hypotheses

The study assesses the personality traits and entrepreneurial intentions of business administration students in Pampanga, Philippines.

Specifically, the study has the following objectives:

1. Identify the personality traits of the respondents based on Costa and McCrae (1986) study.
2. Assess the level of entrepreneurial intentions of the respondents based on the variables of Linan and Chen (2009) study.
3. Analyze the significant relationships of the respondents' personality traits and their entrepreneurial intentions.

Based on the research objectives, the formulated hypotheses are the following:

- H1. There is no significant relationship between the respondents' openness to experience and their entrepreneurial intentions.
- H2. There is no significant relationship between the respondents' conscientiousness and their entrepreneurial intentions.
- H3. There is no significant relationship between the respondents' extraversion and their entrepreneurial intentions.
- H4. There is no significant relationship between the respondents' agreeableness and their entrepreneurial intentions.
- H5. There is no significant relationship between the respondents' neuroticism and their entrepreneurial intentions.
- H6. There is no significant relationship between the respondents' overall personality traits and their entrepreneurial intentions.

According to McCrae (1987), *openness to experience* is a personality trait referring to an individual who has curiosity, imagination, and creativity. He or she is a person who looks for new ideas and concepts. On one hand, *conscientiousness* refers to a person's achievement, work motivation, organization and planning, self-control and acceptance of traditional norms, and responsibility towards others (Costa & McCrae, 1992; Roberts,

Chernyshenko, Stark, & Goldberg, 2005; Zhao, Scott, & Lumpkin, 2009).

Extraversion refers to individuals with outgoing, warm, and friendly personality. People high on extraversion are typically energetic, active, assertive, and dominant in social situations. They usually experience positive emotions and they have positive outlook in life (Baron, 1999; Locke 2000, Zhao et al, 2009). On the other hand, *agreeableness* is the attitude and behavior of an individual towards others. People high on agreeableness are trusting, altruistic, cooperative, modest, and sympathetic (Zhao et al, 2009). And lastly, *neuroticism* refers to individual's tendency to feel negative emotions like anger, anxiety, and depression (Jeronimus, Riese, Sanderman, & Ormel, 2014). Individuals with high score in neuroticism are reactive emotionally and vulnerable to stress. They are most likely to take ordinary situations as threatening and minor frustrations as despairingly difficult (Fiske, Gilbert, & Lindzey, 2009).

Entrepreneurial intentions refer to the individual effort to carry out an entrepreneurial behavior and it has three (3) motivational factors - attitude toward start-up, perceived behavioral control, and subjective norm (Ajzen 1991; Linan, 2004; Linan & Chen, 2009).

2. METHODOLOGY

A correlational-descriptive research was employed in the undertaking to gauge the relationships between the respondents' personality traits and their entrepreneurial intentions. The research instrument was composed of two (2) sections, the NEO Personality Inventory (Costa & McCrae, 1986) and Entrepreneurial Intentions (Linan & Chen, 2009). It utilized a 5-point Likert scale to indicate the level of agreement or disagreement of the respondents. To measure the reliability of the instrument, Cronbach's alpha was utilized.

The Cronbach's Alpha is 0.863 for the NEO Personality Inventory section of the survey instrument composed of 49 items. This value means that the instrument has high reliability. On the other hand, a Cronbach's Alpha of 0.938 for the Entrepreneurial Intentions section of the survey instrument composed of 20 items was magnified.



With this value, the instrument has excellent reliability (Hinton, McMurray & Brownlow, 2014).

The participants of the study were randomly selected from five (5) higher education institutions (HEIs) in Pampanga, Philippines. All these HEIs offer Bachelor of Science in Business Administration or Bachelor of Science in Business Management. A total of 242 questionnaires were retrieved out of 250 surveys distributed. These respondents were enrolled in the second semester, academic year 2015-2016.

The formulated hypotheses were tested using tests of normality specifically Spearman coefficients.

3. RESULTS AND DISCUSSION

After thorough analysis of data, the following were the results of the study:

3.1 Respondents' Personality Traits

The results revealed that the respondents tend to be open to experience, conscientious, and agreeableness while ambivalent to extraversion and neuroticism.

Table 1. Descriptive Statistics of Respondents' Personality Traits

Personality Traits	WM	SD	Interpretation
Openness to Experience (OE)	3.43	.4316	Agree
Conscientiousness (C)	3.40	.4718	Agree
Extraversion (E)	3.37	.4059	Neither Agree nor Disagree
Agreeableness (A)	3.47	.3816	Agree
Neuroticism (N)	3.38	.6787	Neither Agree nor Disagree

3.2 Respondents' Entrepreneurial Intentions

The findings showed that the respondents have a strong predisposition towards becoming an entrepreneur and they have strong support from their close relatives, friends and colleagues. They tend to agree on perceived behavioral control and entrepreneurial intentions. This implies a certain

amount of hesitation and possibly doubts in terms of their readiness and capacity to be an entrepreneur.

It must be noted that all the statements for behavioral control received only an "agree" level from the respondents. Furthermore, the standard deviations, which are relatively high, support the idea that respondents are not homogeneous in their response to the statements. These areas are concerns that must be addressed by the higher education institutions and their business programs.

Table 2. Descriptive Statistics of Respondents' Entrepreneurial Intentions

Entrepreneurial Intentions	WM	SD	Interpretation
Personal Attitude	4.20	.6475	Strongly Agree
Subjective Norm	4.23	.6786	Strongly Agree
Perceived Behavioral Control	3.65	.6356	Agree
Entrepreneurial Intentions	4.08	.7586	Agree
General Mean	4.04	.5317	Agree

3.3 Significant Relationships Between Personality Traits and Entrepreneurial Intentions

Table 3. Test of Normality Among Personality Traits and Entrepreneurial Intentions Variables

	Kolmogorov-Smirnov*		Shapiro-Wilk	
	Statistic	Sig.	Statistic	Sig.
OE	.107	.000	.961	.000
C	.073	.003	.979	.001
E	.100	.000	.980	.002
A	.103	.000	.985	.011
N	.061	.031	.987	.028
OPT	.058	.046	.980	.002
EI	.068	.008	.983	.006

*Lilliefors Significance Correction: $df=242$

OE=Openness to Experience; C=Conscientiousness; E=Extraversion; A=Agreeableness; N=Neuroticism; OPT=Overall Personality Traits; EI=Entrepreneurial Intentions

The tests for normality, both Kolmogorov-Smirnov and Shapiro-Wilk, indicate that the sample distributions for the variables are all significantly different from the normal distribution ($p < .05$). This means that the more appropriate test of relationship



to use is the nonparametric Spearman's rho. Shapiro-Wilk is the more powerful test of normality.

3.3.1 Relationship Between Openness to Experience and Entrepreneurial Intentions

Since the calculated p value is .000, which is lower than $\alpha = .01$, the correlation between OE and EI is *statistically significant* at the 0.01 level of significance for a two-tailed prediction. It can be concluded that, with $r_s = .306$, $N = 242$, $p < .01$, *there is a statistically significant relationship between respondent students' openness to experience (OE) and entrepreneurial intentions (EI)*.

Table 4. Correlation Between Openness to Experience and Entrepreneurial Intentions

			OE	EI
Spearman's rho	O	Correlation Coefficient	1.000	.306**
		Sig. (2-tailed)	.	.000
	EI	Correlation Coefficient	.306**	1.000
		Sig. (2-tailed)	.000	.

** Correlation is significant at the 0.01 level (2-tailed).

3.3.2 Relationship Between Conscientiousness and Entrepreneurial Intentions

Since the calculated p value is .000, which is lower than $\alpha = .01$, the correlation between C and EI is *statistically significant* at the 0.01 level of significance for a two-tailed prediction. It can be concluded that, with $r_s = .341$, $N = 242$, $p < .01$, *there is a statistically significant relationship between respondent students' conscientiousness (C) and entrepreneurial intentions (EI)*.

Table 5. Correlation Between Conscientiousness and Entrepreneurial Intentions

			C	EI
Spearman's rho	C	Correlation Coefficient	1.000	.341**
		Sig. (2-tailed)	.	.000
	EI	Correlation Coefficient	.341**	1.000
		Sig. (2-tailed)	.000	.

** Correlation is significant at the 0.01 level (2-tailed).

3.3.3 Relationship Between Extraversion and Entrepreneurial Intentions

Since the calculated p value is .05, which is lower than $\alpha > .01$, the correlation between E and EI is *not statistically significant* at the 0.01 level of significance for a two-tailed prediction. It can be concluded that, with $r_s = .126$, $N = 242$, $p > .01$, *there is no statistically significant relationship between respondent students' extraversion (E) and entrepreneurial intentions (EI)*.

Table 6. Correlation Between Extraversion and Entrepreneurial Intentions

			E	EI
Spearman's rho	E	Correlation Coefficient	1.000	.126
		Sig. (2-tailed)	.	.050
	EI	Correlation Coefficient	.126	1.000
		Sig. (2-tailed)	.050	.

** Correlation is significant at the 0.01 level (2-tailed).

3.3.4 Relationship Between Agreeableness and Entrepreneurial Intentions

Since the calculated p value is .003, which is lower than $\alpha = .01$, the correlation between E and EI is *statistically significant* at the 0.01 level of significance for a two-tailed prediction. It can be concluded that, with $r_s = .192$, $N = 242$, $p < .01$, *there is a statistically significant relationship between respondent students' agreeableness (A) and entrepreneurial intentions (EI)*.

Table 7 Correlation Between Agreeableness and Entrepreneurial Intentions

			A	EI
Spearman's rho	A	Correlation Coefficient	1.000	.192**
		Sig. (2-tailed)	.	.003
	EI	Correlation Coefficient	.192**	1.000
		Sig. (2-tailed)	.003	.

** Correlation is significant at the 0.01 level (2-tailed).



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3.3.5 Relationship Between Neuroticism and Entrepreneurial Intentions

With a calculated p value of .014, which is lower than $\alpha = .01$, the correlation between N and EI is *statistically significant* at the 0.01 level of significance for a two-tailed prediction. It can be concluded that, with $r_s = .158$, $N = 242$, $p < .01$, *there is a statistically significant relationship between respondent students' neuroticism (N) and entrepreneurial intentions (EI).*

Table 8 Correlation Between Neuroticism and Entrepreneurial Intentions

			N	EI
Spearman's rho	N	Correlation Coefficient	1.000	.158*
		Sig. (2-tailed)	.	.014
	EI	Correlation Coefficient	.158*	1.000
		Sig. (2-tailed)	.014	.

** Correlation is significant at the 0.01 level (2-tailed).

3.3.6 Relationship Between Overall Personality Traits and Entrepreneurial Intentions

With a calculated p value of .000, which is lower than $\alpha = .01$, the correlation between OPT and EI is *statistically significant* at the 0.01 level of significance for a two-tailed prediction. Therefore, the null hypothesis is rejected and it can be concluded that, with $r_s = .309$, $N = 242$, $p < .01$, *there is a statistically significant relationship between respondent students' over-all personality traits (OPT) and entrepreneurial intentions (EI).*

Table 9 Correlation Between Overall Personality Traits and Entrepreneurial Intentions

			OPT	EI
Spearman's rho	O P T	Correlation Coefficient	1.000	.309**
		Sig. (2-tailed)	.	.000
	EI	Correlation Coefficient	.309**	1.000
		Sig. (2-tailed)	.000	.

** Correlation is significant at the 0.01 level (2-tailed).

4. CONCLUSIONS & RECOMMENDATIONS

The study concludes that the respondents' openness to experience, conscientiousness, agreeableness, and neuroticism have significant relationship to entrepreneurial intentions. On one hand, respondents' extraversion reflects no significant relationship to entrepreneurial intentions. Overall, there is statistically significant relationship between respondents' personality traits and their entrepreneurial intentions.

Emphasizing the importance of entrepreneurship among Filipino students in higher education institutions (HEIs) is vital. According to Mendoza and Lacap (2016), the ultimate question of whether a university student will be an employee or employer lies on how HEIs highlight entrepreneurship and the significant impacts of venture creation in micro and macro levels. Thus, the researcher recommends the entrepreneurship education framework in figure 1 which shows how personality traits of students can be utilized in establishing relevant entrepreneurship programs and activities that will impact entrepreneurship education in the Philippines.

Figure 1 manifests an entrepreneurship education framework where students' entrepreneurial intentions can be strengthened relative to their personality traits. There are various entrepreneurial activities where creativity and imagination can be improved such as product innovation programs. Moreover, entrepreneurship through fund-raising programs can increase one's responsibility towards others. A typical example would be, establishing business venture campaigns by supporting a specific charitable institution.



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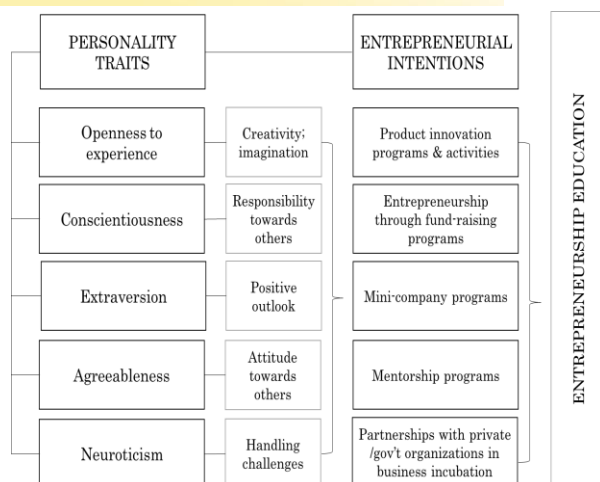


Fig. 1. Entrepreneurship Education Framework: Strengthening Students' Entrepreneurial Intentions Based on their Personality Traits

In terms of providing an avenue for positive outlook, mini-company competitions can be an excellent way for students to fully apply their entrepreneurial skills and appreciate the relevance and impact of venture creation. This program may start from environmental scanning to implementing mini enterprises. To improve their attitude towards others, mentorship program must be in place. Successful Filipino entrepreneurs in the community may be invited to guide and support budding student-entrepreneurs. And lastly, forging partnerships with private and/or government organizations may fortify the neuroticism of students. These partnerships can be a mechanism to make business incubation of HEIs sustainable.

Further studies can be made by other researchers by examining other personality traits variables and how these factors can affect students' entrepreneurial intentions.

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